UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,458	09/26/2003	Timo Tokkonen	852.0023.U1(US)	9731

29683 7590 07/20/2010
HARRINGTON & SMITH
4 RESEARCH DRIVE, Suite 202
SHELTON, CT 06484-6212

EXAMINER	
LONG, ANDREA NATAE	

ART UNIT	PAPER NUMBER
2175	

MAIL DATE	DELIVERY MODE
07/20/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/672,458	TOKKONEN, TIMO	
	Examiner	Art Unit	
	Andrea N. Long	2175	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 May 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6,7,10-12,16,17,19,20,22 and 23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6,7,10-12,16,17,19,20,22 and 23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

FINAL ACTION

Applicant's Response

In Applicant's Response dated 05/05/2010, Applicant amended claims 1, 3, 6, 11, 16, 17, 19, 20, 22 and 23, and argued against all objections and rejections previously set forth in the Office Action dated 02/03/2010.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 6, 11, 17, 20, and 23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1, 6 and 11, as amended, recite the limitation "decreasing in size, ***from their original size***, any input elements not needed for performing the first function by the device". There is no mention of decreasing in size, ***from their original size***, any input elements not needed for performing the first function by the device" in the original specification or originally filed claims.

Claims 17, 20, and 23 recite the limitation "wherein the first function is a wireless communication performed by the device and where the second function is a ***teaching function performed*** by the device for a user of the device. There is no mention of where the second function is a ***teaching function performed*** by the device for a user of the device in the original specification or originally filed claims.

If the Examiner has overlooked the portion of the Specification that describes these features of the present invention, then Applicant should point it out (by page and line number) in response to the Office Action.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17, 20, and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The above listed claims disclose wherein a second function is a teaching function. The specification and drawings fail to provide one skilled in the art with any information of what the teaching function encompasses or what it is. For the purpose of examination the Examiner will interpret the teaching function as a composition activity.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 6, 7, 10-12, 16, 17, 19, 20, 22, and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al (US Patent 7136047 B2), hereinafter "Shimada" in view of Comerford et al (US Patent 5963671), hereinafter "Comerford".

As to independent claim 1, Shimada teaches a method comprising:

receiving a separate information unit entered with an input element of a dynamic input/output arrangement belonging to a user interface of an electronic device (column 6 line 22-23 – input area keys);

automatically determining from an identity of the separate information unit whether an input entry is for performing a first function (Fig. 4D – entering numbers) by the device or for performing a second function by the device (Fig. 4C - entering English alphabets),

wherein when it is determined that the input entry is for performing the first function by the device, increasing in an equal amount a size of input elements of which at least one

is a subsequent input element needed for performing the first function by the device (Fig. 4D,–column 6 lines 24-27); and

when it is determined that the input entry is for performing the second function (entering English alphabets) by the device, determining which particular information unit should be input next for performing the second function (English alphabets correspond to the input entry); and emphasizing by size the input element corresponding to the particular information unit which should be entered next in the user interface of the electronic device (Fig. 4C – displaying the English alphabets). It is noted that Shimada teaches wherein larger buttons makes selection by finger easier and more accurate, increasing user convenience (column 2 lines 64-66). Shimada does not teach decreasing in size, from their original size, any input elements not needed for performing the first function by the device or wherein the sizes of the emphasized input elements vary on a case-specific basis depending on respective probabilities of the information units associated with the input elements.

Comerford teaches decreasing in size, any input elements not needed for performing the first function by the device (Fig. 2, the input elements are decreased in size relative to the enlarged input elements). Comerford also teaches wherein the sizes of the emphasized input elements vary on a case-specific basis depending on respective probabilities of the information units associated with the input elements (column 3 lines 64-67 "degree of emphasis", column 13 lines 1-9). The Examiner would like to note that the input elements not needed are displayed to appear smaller than the

needed input elements and with the availability of emphasizing input elements to different sizes provide one skilled in the art of programming to reasonably be able to decrease the size of the input elements from there original size to further emphasize the input elements that are needed for selection.

It would have been obvious to one skilled in the art to have combined the teachings to Shimada with Comerford to increase the facilitation of faster and more efficient selection of keys.

As to dependent claim 2, Shimada teaches wherein the input of the information unit is fulfilled by a press of a separate key belonging to the user interface (column 6 lines 22-23 – input area keys).

As to dependent claim 3, Shimada teaches wherein the dynamic input/output arrangement comprises a touch display or a projection keyboard (column 5 lines 8-11).

As to independent claim 6, Shimada teaches an electronic device comprising: at least one processor (Fig. 1); and

at least one memory including computer program code, where the at least one memory an the computer program code are configured, with the at least one processor, to cause the electronic device to at least (Fig. 1 column 4 lines 25-54):

save information (memory);

display a plurality of input elements, each of the input elements corresponding to an information unit (column 6 line 22-23 – input area keys);

identify after a first input an entered information unit and automatically determine based on the identity of the first information unit whether an input entry is performing a first function by the device (Fig. 4D - entering numbers) or for performing a second function by the device (Fig. 4C - entering English alphabets),

if it is determined that the input entry is for performing the first function by the device, increase in an equal amount a size of input elements of which at least one is a subsequent input element needed for performing the first function by the device (Fig. 4D,–column 6 lines 24-27); and

if it is determined that the input entry for performing the second function by the device, determine which particular information unit should be entered next for performing the second function and emphasize by size the input element corresponding to the particular information unit which should be entered next (Fig. 4C – displaying the English alphabets). It is noted that Shimada teaches wherein larger buttons makes selection by finger easier and more accurate, increasing user convenience (column 2 lines 64-66). Shimada does not teach decreasing in size, from their original size, any

input elements not needed for performing the first function by the device or wherein the sizes of the emphasized input elements vary on a case-specific basis depending on respective probabilities of the information units associated with the input elements.

Comerford teaches decreasing in size, any input elements not needed for performing the first function by the device (Fig. 2, the input elements are decreased in size relative to the enlarged input elements). Comerford also teaches wherein the sizes of the emphasized input elements vary on a case-specific basis depending on respective probabilities of the information units associated with the input elements (column 3 lines 64-67 "degree of emphasis", column 13 lines 1-9). The Examiner would like to note that the input elements not needed are displayed to appear smaller than the needed input elements and with the availability of emphasizing input elements to different sizes provide one skilled in the art of programming to reasonably be able to decrease the size of the input elements from there original size to further emphasize the input elements that are needed for selection.

It would have been obvious to one skilled in the art to have combined the teachings to Shimada with Comerford to increase the facilitation of faster and more efficient selection of keys.

As to dependent claim 7, Shimada teaches where the input elements are defined by an area on a touch display or a projection keyboard (Fig. 3, column 5 lines 8-11).

As to dependent claim 10, Shimada teaches further comprising a cellular terminal or PDA (column 4 lines 5-6).

As to independent claim 11, claim 11, recites substantially similar subject matter as that of claim 1 and is rejected under the same reasoning.

As to dependent claim 12, Shimada teaches where said input of the information unit in the electronic device is fulfilled by a separate key press in a user interface (column 6 line 22-23 – input area keys).

As to dependent claim 16, Shimada teaches based upon a particular function of the device to be performed, changing a descriptive text of at least one of the input elements to a descriptive text associated with the particular function (Figs. 4C and 4D – based on the function the input elements display descriptive text such as the alphabet or number in the input element).

As to dependent claim 17, Shimada teaches wherein the electronic device is a cell phone which one skilled in the art is well familiar with the use of a cell phone for wireless communication for calling. Shimada allows a user to select to enter numbers. It is reasonable to one skilled in the art that if the user is entering in numbers into the cell phone that the user's primary intention is to dial a telephone number, and therefore

teaches wherein the first function (entry of numbers) is a wireless communication performed by the device.

Shimada additionally teaches where the second function (entry of English alphabet) is a teaching function performed by the device for a user of the device (composition activity) such as text messaging, memo, or email (Fig. 7).

As to dependent claim 19, Shimada teaches wherein the electronic device is further caused to, based upon a particular function of the device to be performed, change a descriptive text of at least one of the input elements to descriptive text associated with the particular function (Figs. 4C and 4D – based on the function the input elements display descriptive text such as the alphabet or number in the input element).

As to dependent claim 20, Shimada teaches wherein the electronic device is a cell phone which one skilled in the art is well familiar with the use of a cell phone for wireless communication for calling. Shimada allows a user to select to enter numbers. It is reasonable to one skilled in the art that if the user is entering in numbers into the cell phone that the user's primary intention is to dial a telephone number, and therefore teaches wherein the first function (entry of numbers) is a wireless communication performed by the device.

Shimada additionally teaches where the second function (entry of English alphabet) is a teaching function performed by the device for a user of the device (composition activity) such as text messaging, memo, or email (Fig. 7).

As to dependent claim 22, further comprising, based upon a particular function of the device to be performed, changing a descriptive text of at least one of the input elements to a descriptive text associated with the particular function (Figs. 4C and 4D – based on the function the input elements display descriptive text such as the alphabet or number in the input element).

As to dependent claim 23, Shimada teaches wherein the electronic device is a cell phone which one skilled in the art is well familiar with the use of a cell phone for wireless communication for calling. Shimada allows a user to select to enter numbers. It is reasonable to one skilled in the art that if the user is entering in numbers into the cell phone that the user's primary intention is to dial a telephone number, and therefore teaches wherein the first function (entry of numbers) is a wireless communication performed by the device.

Shimada additionally teaches where the second function (entry of English alphabet) is a teaching function performed by the device for a user of the device (composition activity) such as text messaging, memo, or email (Fig. 7).

Response to Arguments

Applicant's arguments filed 05/05/2010 have been fully considered but they are not persuasive.

Applicant argues that the references fail to disclose or suggest determining from an identity of the separate information unit whether an input entry is for performing a first function by a device or a second function by a device.

The Examiner disagrees.

Shimada teaches allowing a user to select which group of characters to display on the device. Shimada teaches that by selecting the numbers key in the input area will display and allow for entering of numbers in the application, therefore the function is one of displaying and entering numbers into the application. The same concept goes for displaying and entering English letters when the user selects the English alphabet key in the input area. Therefore the system is determining which key in the input area is selected in order to operate (display and allow entering) or the correct characters. If the system was performing only one function for the input keys as the Applicant suggests, then the characters corresponding would not change based on the selection of the input keys.

The Applicant asserts that the references fail to disclose or suggest when it is determined that the input entry is for performing the first function by the device,

increasing in an equal amount a size of input elements of which at least one is a subsequent input element needed for performing the first function by the device and decreasing in size, from their original size, any input elements not needed for performing the first function by the device.

The Examiner disagrees.

Shimada teaches when a numbers key is selected in the input area the corresponding number keys will display in the character area and as can be seen by Fig. 4D, they are all increased by an equal amount. The mere fact that the user selects the numbers key to have number characters displayed provides one skilled in the art with reasonable understanding that the user wishes to input numbers for selection.

With regards to the second portion of the limitation for decreasing in size input elements not needed as discussed above in the claim rejection, Fig. 2 of Comerford shows where the elements not needed for selection are decreased in size relative to the enlarged elements. The Examiner would like to note that the input elements not needed are displayed to appear smaller than the needed input elements and with the availability of emphasizing input elements to different sizes provide one skilled in the art of programming to reasonably be able to decrease the size of the input elements from there original size to further emphasize the input elements that are needed for selection.

By implementing the method of Comerford into the method of Shimada, which both are directed to quicker and more efficient selection of input elements, the display of Fig. 4D would show the "#" key and "*" key smaller than that number keys.

The Applicant asserts that the references fail to disclose or suggest when it is determined that the input entry is for performing the second function by the device, determining which particular information unit should be input next for performing the second function; and emphasizing by size the input elements corresponding to the particular information unit which should be entered next in the user interface of the device.

The Examiner disagrees.

The Examiners interpretation of the references teaching the claimed limitation is the same as that of the argument above in regards to the emphasizing of elements in the first function taught above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea N. Long whose telephone number is 571-270-1055. The examiner can normally be reached on Mon - Thurs 6:00 am to 3:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Bashore can be reached on 571-272-4088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrea N Long/
Examiner, Art Unit 2175

/William L. Bashore/
Supervisory Patent Examiner, Art Unit 2175